

What Is Claimed Is:

1. A recombinant Equine Herpes Virus (EHV) wherein the protein gM is absent, and wherein said EHV is free of heterologous elements.

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2. The EHV according to claim 1, wherein the gene coding for the protein gM is deleted.

3. The EHV according to claim 1, obtainable by a method comprising the steps of:

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a) isolating a wild-type EHV;
b) establishing a plasmid encoding the EHV gM gene, optionally with flanking sequences;
c) generating a complementing cell line expressing gM or parts thereof;
d) establishing an EH virus carrying a GFP-encoding cassette insert in its gM
15 coding sequence by co-transfected the complementing cell line of step b) with EHV-nucleic acid and a plasmid encoding gM which is interrupted by a GFP-encoding cassette insert;
e) deleting the GFP-encoding cassette; and
f) selecting for the EHV clones wherein the GFP-encoding cassette is
20 successfully deleted.

4. The EHV according to claim 1, wherein the EHV is EHV-1.

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5. The EHV-1 according to claim 4, wherein 850-1100 bp of the gM open reading frame are deleted.

6. The EHV-1 according to claim 4, wherein the entire gM coding sequence is deleted except for 150-200 bp of the coding sequence for the C-terminal portion and except for 150-250 bp of the coding sequence for the N-terminal portion.

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7. The EHV-1 according to claim 6, wherein the entire gM coding sequence is deleted except for 184 bp of the coding sequence for the C-terminal portion and except for 209 bp of the coding sequence for the N-terminal portion.

8. The EHV-1 according to claim 4, wherein nucleotides 93268-93318 to 94222-94322 of the gM coding sequence as corresponding to SEQ ID NO:1 are deleted.
9. The EHV-1 according to claim 7, wherein nucleotides 93268 to 94322 of the gM coding sequence as corresponding to SEQ ID NO:1 are deleted.
10. The EHV-1 according to claim 8, wherein nucleotides 94263 to 93302 of the gM coding sequence as corresponding to SEQ ID NO:1 are deleted.
11. The EHV-1 according to claim 4, wherein said EHV-1 is a recombinant variant based on strain Rach of EHV-1.
12. The EHV-1 according to claim 11, wherein said EHV-1 is Rach-based recombinant variant isolate HΔgM-w as deposited at the ECACC/CAMR on October 16, 2002 with the accession number 02101663.
13. The EHV according to claim 1, wherein said EHV is EHV-4.
14. The EHV-4 according to claim 13, wherein 900-1150 bp of the gM open reading frame are deleted.
15. The EHV-4 according to claim 13, wherein the entire gM coding sequence is deleted except for 0-50 bp of the coding sequence for the C-terminal portion and except for 150-250 bp of the coding sequence for the N-terminal portion.
16. The EHV-4 according to claim 15, wherein the entire gM coding sequence is deleted except for 34 bp of the coding sequence for the C-terminal portion and except for 209 bp of the coding sequence for the N-terminal portion.
17. The EHV-4 according to claim 13, wherein nucleotides 92681-92731 to 93765-93865 of the gM coding sequence as corresponding to SEQ ID NO:2 are deleted.

18. The EHV-4 according to claim 16, wherein nucleotides 92681 to 93865 of the gM coding sequence as corresponding to SEQ ID NO:2 are deleted.

19. The EHV-4 according to claim 17, wherein nucleotides 92715 to 93824 of the gM coding sequence as corresponding to SEQ ID NO:2 are deleted.

20. The EHV-4 according to claim 13, wherein said EHV-4 is a recombinant variant based on MSV Lot 071398 of EHV-4.

21. The EHV-4 according to claim 20, wherein said EHV-4 is based on MSV Lot 071398 and isolate E4ΔgM-w and that it is the EHV-4 which was deposited at the ECACC/CAMR on January 14, 2003 with the accession number 03011401.

22. A nucleic acid coding for an EHV according to claim 1.

23. A vaccine preparation comprising an EHV according to claim 1.

24. A vaccine preparation comprising the nucleic acid according to claim 22.

25. A vaccine preparation comprising at least one EHV-1 according to claim 4 and one EHV-4 according to claim 13.

26. A method of treatment and/or prevention of an EHV-associated condition comprising administering to a mammal in need of such a treatment a therapeutically effective amount of the vaccine preparation according to claim 23 or 24 and monitoring the therapeutic success.

27. A method of treatment and/or prevention of an EHV-associated condition comprising administering to a mammal in need of such a treatment a therapeutically effective amount of the vaccine preparation according to claim 25 and monitoring the therapeutic success.

28. A method for obtaining a recombinant EHV, comprising the steps of:

- a) isolating a wild-type EHV;
- b) establishing a plasmid encoding the EHV gM gene, optionally with flanking sequences;
- c) generating a complementing cell line expressing gM or parts thereof;
- s d) establishing an EH virus carrying a GFP-encoding cassette insert in its gM coding sequence by co-transfected the complementing cell line of step b) with EHV-nucleic acid and a plasmid encoding gM which is interrupted by a GFP-encoding cassette insert;
- e) deleting the GFP-encoding cassette; and
- 10 f) selecting for the EHV clones wherein the GFP-encoding cassette is successfully deleted.

29. A cell line for use in a method according to claim 28, wherein the gene encoding the protein gM is transfected into said cell line and said cell line expresses gM.

15 30. The cell line according to claim 29, wherein the cell line is a cell line selected from the group of Vero cells, RK-13, and cc.

31. The cell line according to claim 30, wherein the cell line is the gM complementing
20 cell line VERO GM which was deposited at the ECACC/CAMR on January 28, 2003 with the accession number 03012801.